

WHAT IS CLAIMED IS:

1. An interface circuit capable of allowing transmission of data from a detachable card-type memory, which requires access by sectors, to an electronic device, comprising:
 - 5 a reading unit that reads data for a plurality of sectors from the card-type memory;
 - a buffer that stores the data read and has a capacity to store data for a plurality of sectors;
 - a receiver that receives from the electronic device a read-access for data stored in the buffer;
 - a data checker that decides whether data corresponding to the read-access exists among the data stored in the buffer; and
 - a transmitter that transmits the data from the buffer to the electronic device when the data checker decides that data corresponding to the read-access exists among the data stored in the buffer.
2. The interface circuit according to claim 1, further comprising a data deleter that deletes data in the buffer, wherein
 - 20 if the data checker decides that data corresponding to the read-access does not exist among the data stored in the buffer, the data deleter deletes from the buffer data that was sent by the transmitter to the electronic device at an oldest period, the reading unit reads from the card-type memory data corresponding to the read-access and stores the data read into the buffer, and the transmitter

transmits to the electronic device data corresponding to the read-access from among the data stored in the buffer.

3. The interface circuit according to claim 1, wherein the card-type
5 memory is a secure digital card.

4. The interface circuit according to claim 1, wherein the buffer has a capacity to store data for at least two sectors.

10 5. An application specific integrated circuit having at least one application function from among an image processing function, an image input/output function, and a data communication function, the application functions sharing at least one of a memory and a hard disk as common resources, comprising:

15 an interface circuit capable of allowing transmission of data from a detachable card-type memory, which requires access by sectors, to an electronic device, the interface circuit including

a reading unit that reads data for a plurality of sectors from the card-type memory;

20 a buffer that stores the data read and has a capacity to store data for a plurality of sectors;

a receiver that receives from the electronic device a read-access for data stored in the buffer;

25 a data checker that decides whether data corresponding to the read-access exists among the data stored in the buffer; and

a transmitter that transmits the data from the buffer to the electronic device when the data checker decides that data corresponding to the read-access exists among the data stored in the buffer.

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6. The application specific integrated circuit according to claim 5, wherein the interface circuit further includes a data deleter that deletes data in the buffer, and

if the data checker decides that data corresponding to the
10 read-access does not exist among the data stored in the buffer, the data deleter deletes from the buffer data that was sent by the transmitter to the electronic device at an oldest period, the reading unit reads from the card-type memory data corresponding to the read-access and stores the data read into the buffer, and the transmitter
15 transmits to the electronic device data corresponding to the read-access from among the data stored in the buffer.

7. The application specific integrated circuit according to claim 5, wherein the card-type memory is a secure digital card.

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8. The application specific integrated circuit according to claim 5, wherein the buffer has a capacity to store data for at least two sectors.

9. An image forming apparatus having at least one application
25 function among an image processing function, an image input/output

function, and a data communication function, comprising:

an application specific integrated circuit in which the application functions can share at least one of a memory and a hard disk as common resources, the application specific integrated circuit including

5 an interface circuit capable of allowing transmission of data from a detachable card-type memory, which requires access by sectors, to an electronic device, the interface circuit including

a reading unit that reads data for a plurality of sectors, from the card-type memory;

10 a buffer that stores the data read and has a capacity to store data for a plurality of sectors;

a receiver that receives from the electronic device a read-access for data stored in the buffer;

15 a data checker that decides whether data corresponding to the read-access exists among the data stored in the buffer; and

a transmitter that transmits the data from the buffer to the electronic device when the data checker decides that data corresponding to the read-access exists among the data stored in the buffer.

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10. The image forming apparatus according to claim 9, wherein the interface circuit further includes a data deleter that deletes data in the buffer, and

25 if the data checker decides that data corresponding to the read-access does not exist among the data stored in the buffer, the

data deleter deletes from the buffer data that was sent by the transmitter to the electronic device at an oldest period, the reading unit reads from the card-type memory data corresponding to the read-access and stores the data read into the buffer, and the transmitter
5 transmits to the electronic device data corresponding to the read-access from among the data stored in the buffer.

11. The image forming apparatus according to claim 9, wherein the card-type memory is a secure digital card.

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12. The image forming apparatus according to claim 9, wherein the buffer has a capacity to store data for at least two sectors.

13. The image forming apparatus according to claim 9, wherein a
15 program stored in the card-type memory is directly executed.